We were interested to read the article by Dr AR Webb and others (August 1989;44:674-5) showing patients' preference for lignocaine gel over lignocaine aerosol for topical nasal anaesthesia preceding fibroptic bronchoscopy. Seven years ago we reported the same preference for lignocaine gel by patients and normal subjects. Nasal anaesthesia was equally effective with these two different methods, but the use of the aerosol was often associated with considerable nasal discomfort, an unpleasant taste, and epiphora, which did not occur with the gel. The additional advantage of the lubricating effect of the gel in passing the bronchoscope noted by Dr Webb and colleagues was also reported in our study. Furthermore, in our study plasma lignocaine concentrations were lower after the same dose of lignocaine gel by comparison with the aerosol, suggesting that the gel might also be safer in terms of lignocaine toxicity.

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Disturbance in respiratory mechanics in infants with bronchiolitis

I have read the report by Dr Seidenberg and others (August 1989;44:660-7) on lung function in infants with bronchiolitis with considerable interest given our own studies in this field. Whereas their results relating to forced and passive expiratory flow are certainly in line with what we expect in this obstructive lung disease, it appears that they, like us, are in fact finding surprisingly low values for thoracic gas volume (TGV). It is true that in the acute phase their average TGV was 130% of predicted and in the chronic phase 126%, but the scatter was wide (see their SEM values) and several infants must have had values in or below their normal range. In our study in the chronic phase we noted many infants with TGV values below our normal range, which is somewhat higher than the range used by Dr Seidenberg and his colleagues. Given the differences in normal range I suspect that the two studies contain an appreciable number of bronchiolitic infants with surprisingly low TGV values. They do not really come to grips with the thornty problem of whether or not TGV measurements are reliable in bronchiolitis. How, for example, do they know that all their values (both the high and low) in the acute and chronic phases are not underestimated? I was delighted to see their results, which seem to confirm our own anxieties and suggest that future results were not simply an artefact. I should most interested in their further thoughts on this issue.

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Adverse effect of additional weight on exercise against gravity in patients with chronic obstructive airways disease

The conclusions of Dr C R Swinburn and others (September 1989;44:716-20) can be derived from common sense and an elementary knowledge of physics. Acceleration or deceleration of a mass requires a force. If the mass is increased, a greater force is needed for the same acceleration. Alternatively, if the force is unchanged, less acceleration is produced (force = mass \times acceleration). In man the force is produced by muscle contraction, which is the sum of the energy generated by the muscles and the energy which is proportional to the force produced. When one walks at a steady pace, the legs alternately accelerate and decelerate but the body does not. Therefore the wearing of lead aprons will not substantially increase energy requirements, unless they are worn on the legs, not the thorax. Clearly, in step testing the whole body accelerates and decelerates in a vertical plane against gravity. So the wearing of lead aprons will make a difference to energy expenditure and hence oxygen consumption during this form of exercise.
Letters to the Editor


Both these books are direct reissues in soft back format of two titles from the series of Wolfe Surgical Atlases that were published initially in 1982 and 1984. The new format has the advantage of making the books cheaper and therefore potentially more accessible to those at whom they are principally aimed (junior doctors, theatre nurses, and medical students); but the interval of several years since publication and the absence of any revision have meant that some areas of current practice receive little or no mention. Examples of this are the use of internal mammary artery in coronary bypass graft procedures, the increasingly widespread preference for arterial repair of the great arteries in the neonatal period, and the management of pulmonary valve stenosis by balloon dilatation. Despite these limitations, the atlases still cover a wide range of standard procedures in adult and paediatric practice, which are illustrated with photographs of a uniformly high quality. The accompanying text is lucid and explicit and, although allowance has to be made for individual surgical practice, both these books would provide the trainee surgeon or scrub nurse with valuable preparation before engaging in a surgical procedure. In addition, the excellent use of intraoperative photography provides a useful substrate for teaching outside the operating theatre. Given the aims and purposes of the books, however, it is unfortunate that some fundamental areas of cardiac surgical practice are not given better coverage. Although surgical approaches and cannulation techniques if the intercoronary bypass are covered, there is little attempt to describe the basic equipment or techniques of cardio-pulmonary bypass, which is obviously an essential component of most cardiac surgical procedures. In addition, the use of cardiopulmonary bypass, including topical and systemic hypothermia and the use of cardio-pulmogea, receives little explanatory mention; the illustrations of cardiopulmonary administration are placed somewhat inappropriately before the chapter on the institution of cardiopulmonary bypass. Despite these limitations, both atlases provide an unparalleled visual step-by-step account of most routine cardiac surgical operations, and consequently provide a valuable training manual for all those interested in this branch of surgery.—MPGJ

BOOK REVIEWS


This is a fine book, which I believe anyone interested in respiratory physiology or in climbing high mountains will wish to read and own. The authors are acknowledged experts who have not only thought seriously about the problems of high altitude medicine and physiology but have also worked and carried out experiments in high places in the field under extraordinary conditions. All three were members of the famous "Silver Hut" Expedition in the early 1960s to the Everest area and continued to be active and interested in high altitude problems. Though the book’s main strength is in the chapters on respiratory physiology and the clinical problems of mountain sickness and its complications, the coverage is more comprehensive, with chapters on nutrition, endocrine and renal problems, and thermal balance and its disorders. There is a chapter on clinical lessons for patients with lung disease living at sea level. The final chapters deal with more practical problems, such as fitness for altitude, accidents and emergencies, and even anaesthesia at altitude (by John Nunn). I particularly enjoyed the historical background in the first two chapters and the historical introduction of several other sections—perhaps a hint of a volume devoted to these issues alone by one or more of the authors in the future. As an enthusiastic hill walker at lower levels in Scotland, I started to review this book on a walking holiday in Austria at about the time that many of the problems described are just beginning. I am tempted to go even higher, and recommend this book to all with such intentions.—MFS.


The first book with this title—by J C Meakins and H W Davies of Edinburgh—was published in 1925 and listed 404 references. The first edition of the present book, published in 1961, was written by D V Bates and Ronald V Christie (a pupil of Meakins) and listed 3834 references. The authors and contributors came mostly from Montreal. This new edition, dedicated to Christie’s memory, lists 5418 new references. The author and many of the contributors are based in Vancouver. These books exemplify the way in which during the last 60 years physiologic principles have influenced respiratory disease. The fully justified Haldane’s statement that “Today’s physiology is tomorrow’s medicine.” Since the second edition there has been a change of emphasis, reflecting both the increasing importance of cellular processes in the lung and the wider application of established knowledge of pulmonary function, particularly to such subjects as occupational lung disease, sarcoidosis, and diffuse interstitial fibrosis. The book is undoubtedly needed and it is in its aim of aiding physicians to raise their interpretation of pulmonary function tests above a superficial level by providing and reviewing the detailed knowledge which they need. Readers familiar with the earlier editions will find that the detailed case studies, in which clinical, radiological, and functional findings were correlated, and some of the detailed description of techniques, such as measurement of diffusing capacity, have not been carried forward to the new edition; but the profusion of references remains one of the most valuable features of the book. It will be welcomed by all whose work includes interpretation of the results of pulmonary function tests, and should form a part of the bench library in pulmonary function laboratories. Future editions will be needed and from the westward progress of its predecessors one may guess that the next will come from the eastern shore of the Pacific!—GJRmCH


This book follows the general format and style of other Wolfe colour atlases. The text is kept to a minimum and is illustrated with just over 300 photographs and diagrams. The authors give a good overview of asthma, dealing in the main with clinical aspects of the disease. Do not expect to find chapters on inflammatory mediators here. Topics covered range from epidemiology and physiology to the treatment of childhood and adult asthma. The recognition of work asthma, the use of the peak flow meter, and self-treatment regimens are given ample space. There are useful chapters with sugges-
Adverse effect of additional weight on exercise against gravity in patients with chronic obstructive airways disease.

A J France

Thorax 1990 45: 79-80
doi: 10.1136/thx.45.1.79-c

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